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10/676,918	09/30/2003	Nadav Eiron	ARC920030028US1	8277
72280 VAN N. NGU	7590 10/30/200 Y	8	EXAMINER	
IBM CORPORATION, ALMADEN RESEARCH CENTER INTELLECTUAL PROPERTY LAW DEPT. C4TAJ/2B 650 HARRY ROAD SAN JOSE, CA 95120-6099			BLACK, LINH	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

# Application No. Applicant(s) 10/676,918 EIRON ET AL. Office Action Summary Examiner Art Unit LINH BLACK 2169 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS. WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). Status 1) Responsive to communication(s) filed on 07 July 2008. 2a) This action is FINAL. 2b) This action is non-final. 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 1-3.5-7.9.10 and 12-18 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5) Claim(s) \_\_\_\_\_ is/are allowed. 6) Claim(s) 1-3,5-7,9,10 and 12-18 is/are rejected. 7) Claim(s) \_\_\_\_\_ is/are objected to. 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement. Application Papers 9) The specification is objected to by the Examiner. 10) The drawing(s) filed on is/are; a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abevance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some \* c) None of: Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). \* See the attached detailed Office action for a list of the certified copies not received. Attachment(s)

1) Notice of References Cited (PTO-892)

Paper No(s)/Mail Date 7/7/08

Notice of Draftsperson's Patent Drawing Review (PTO-948)
 Notice of Draftsperson's Patent Drawing Review (PTO-948)
 Notice of Draftsperson's Patent Drawing Review (PTO-948)

Interview Summary (PTO-413)
 Paper No(s)/Mail Date.

6) Other:

5) Notice of Informal Patent Application

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#### DETAILED ACTION

This communication is responsive to the Applicant's document dated 7/7/08.

Claims 1-3, 5-7, 9-10, 12-18 are pending in the application. Claim 1 is an independent claims.

## Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 5-7, 9-10, 12-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolton et al. (US 2004/0030741), in view of Brown et al. (US 20040064471), and further in view of Gould et al. (US 20050060295).

As per claim 1, Wolton et al. teach indexing, input data set categorization based on topics – pars. 432, 1054, 1047; "The Compound transitions logger 1625 manager program knowledge base construction program includes means to perform all aspects of registry 1525 collection, indexing, assignment, and statistical grouping for purposes of housekeeping the deep knowledge system at that class layer" – pars. 1046-1949; identifying a collection of hyperlinked documents as a single document compound document on a single topic created by a number of collaborating authors – paragraphs 431-436 (topic categories).

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observing the results of a number of heuristics run on the body of hyperlinked material and related hyperlinks - pars. 53 (...pursuing any links associated with web page documents...), 397 (rules), 402 (metric navigation as true findings are kept and not all links); fig. 18c.

analyzing the content and structure of the compound document to find a preferred entry point for the compound document – pars. 163, 662-663, 1041-1049.

wherein the analyzing includes observing the results of a number of heuristics run on the component document and related hyperlinks – pars. 374, 432, 802, 1048.

processing the compound document as a whole, including at least one of indexing, classification, and retrieval – pars. 432, 512-521, 474.

processing the compound document from the entry point, including at least one of creating at least one of presentation of results from retrieval, summarization, and classification – pars. 49-52, 151-154, 831.

Wolton teaches similarity between words/terms, subjects - pars. 164, 435, 792 (other rules/heuristics); pars. 449-452 (depending on user navigation preference setting selected); "the preferred embodiment containing at least three metric channels. A single metric channel can contain terms, formulae, and related rules which when applied in search navigation, can be used to determined whether the agent search keeps or discard links found on any web page for further search" - par. 397, fig. 5b.

Thus, Examiner interprets a second metric channel equivalent to a second number of

heuristics/rules. Wolton does not disclose wherein the heuristic includes identifying at least one of: similar creation dates and similar last-modified dates. Brown teaches a page has a plurality of links to linked pages in the database – pars. 10-11; 45, 47; web pages' information such as creation dates can be searched – par. 62. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Wolton's teaching with Brown's teaching in order to better identify the searching pages.

Wolton and Brown et al. do not teach weighted averaging of the numerical scores into an overall score, and the maximum overall score determines the preferred entry point. Gould teaches overall score – pars. 53-54 (classifying emails and overscore), 65 (overscore, determine the class to which the data belongs). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Wolton's, Brown's teachings with Gould's teaching in order to better analyze the data thus, better data storage and retrieval.

As per claim 2, Wolton et al. teach the internet, an intranet, and a digital library – par. 149.

As per claim 3. Wolton et al. teach

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wherein the body of hyperlinked material is distributed over a plurality of URLs - pars.

156, 158, 802, 832.

As per claim 5, Wolton et al. teach

wherein the heuristic includes identifying hyperlinks that link within the same directory and include a sufficient quantity of common anchor text – pars. 566-573.

As per claim 6, Wolton et al. teach

wherein the heuristic includes identifying hyperlinks that contain linguistic structures that indicate relationships between parts of a document including at least one of a list of page numbers, and the terms "next", "previous", "index", "contents", and their non-English equivalents – pars. 433. 512-521. 1045.

As per claim 7, Wolton et al. teach

wherein the heuristic includes identifying external hyperlinks to the same places – pars. 538, 567.

As per claim 9, Wolton et al. teach

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wherein the heuristic includes identifying individual URLs having similar structure

indicating an order of inclusion in the compound document - pars. 163-164, 484.

As per claim 10, Wolton et al. teach

wherein the heuristic includes identifying a link structure of "wheel" form - pars. 426,

544-550, 564-567.

As per claim 12, Wolton et al. teach

wherein the heuristic includes identifying specific filenames that define the entry point,

including at least one of: "index" and "default" - pars. 432, 662, 800.

As per claims 13-14, Wolton et al. teach

wherein the heuristic includes identifying a particular component document in the

compound document as the entry point because the component document has several

in-links; wherein the in-links are from outside the compound document - pars. 18, 156,

434.

As per claim 15, Wolton et al. teach

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wherein the heuristic includes identifying a particular component document in the compound document as the entry point because the component document has several

out-links - pars. 538, 567.

As per claim 16, Wolton and Brown do not disclose determining a measure of vector

distances along intra-document links between a particular component document and all

other component documents in the compound document. Gould et al. teach classifying

data using distance metric between feature vectors where nodes of data are connected

by links - pars. 24-25. Thus, it would have been obvious to one of ordinary skill in the

art at the time of the invention to combine Wolton's, Brown's teaching with Gould's

teaching in order to analyze data for better storage and retrieval.

As per claim 17, Wolton et al. teach

URLs having common directory components followed by different ending directory

components - pars. 565-571.

As per claim 18, Wolton et al. teach

wherein the ending directory components contain specific identifying information – pars.

662, 800.

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### Response to Arguments

Applicant's arguments filed 7/7/08 have been fully considered but they are not persuasive. Regarding the Applicant's argument on page 8 that Wolton does not disclose identifying a collection of hyperlinked documents as a single document compound document on a single topic created by a number of collaborating authors. Examiner disagrees.

Wolton discloses indexing, input data set categorization based on topics – pars. 431-436 (topic categories), 1054, 1047. The data searching, navigation, content retrieval from media content available on the WWW, Internet, intranets, extranets, virtual private networks, and databases – par. 149, thus, the data available on these sources are created by at least more than one author. Also a category is a collection of links to relevant web pages to that particular category/topic. Wolton also discloses on pars. 53 (...pursuing any links associated with web page documents...), 402 (metric navigation as true findings are kept and not all links).

In response to applicant's argument that there is no suggestion to combine the references, Brown and Wolton, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, in

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the technological art, a document's creation and modification dates are well known in the art, thus, similarity in these attributes can be used by an ordinary skill in the art to rule in and out search results as disclosed by Brown in the cited Office Action.

Regarding the Applicant's argument that Wolton does not disclose analyzing the content and structure of the compound document to find a preferred entry point for the compound document. Examiner disagrees.

Wolton discloses indexing, input data set categorization based on topics – pars. 431-436 (topic categories), 1054, 1047. Thus, before an input data set is categorized, the data set/data item is analyzed. Examiner interprets a link to a specific relevant category to store the analyzed data set as a preferred entry point.

Wolton discloses "the preferred embodiment containing at least three metric channels. A single metric channel can contain terms, formulae, and related rules which when applied in search navigation, can be used to determined whether the agent search keeps or discard links found on any web page for further search" - par. 397, fig. 5b. Gould discloses classifying emails with weights, scores, and overscore to decide a relevant class. Thus, in combination, the applied prior art discloses the teaching of the argued claim 1.

#### Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LINH BLACK whose telephone number is 571-272-4106. The examiner can normally be reached on Mon.-Thurs..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Trujillo can be reached on 571-272-3677. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LINH BLACK Examiner Art Unit 2169

October 26, 2008

/HUNG Q. PHAM/ Primary Examiner, Art Unit 2169